

What is claimed is:

- 1) A foam cushion backing comprising:
 - a) a foamable polymer composition comprising:
 - i) one or more of a homogenously branched ethylene polymer (HBEP) or a substantially linear ethylene polymer (SLEP),wherein a foam cushion backing is prepared from the foamable polymer composition, wherein the foam cushion backing has a thickness of greater than 0.075 inches, and wherein the foam cushion backing is suitable for use in carpet or carpet tiles.
- 2) The foam cushion backing of claim 1, wherein the foam cushion backing is substantially uncrosslinked.
- 3) The foam cushion backing of claim 1, comprising the SLEP.
- 4) The foam cushion backing of claim 1 having a thickness of from about 0.100 to about 0.225 inches.
- 5) The foam cushion backing of claim 1, wherein the foamable polymer composition further comprises an adhesive material, and wherein the adhesive material comprises a functionalized polymer or copolymer.
- 6) The foam cushion backing of claim 5, wherein the foamable polymer composition comprises from about greater than 0 to about 10 % of the functionalized polymer or copolymer, as measured by total weight of the foamable polymer composition.
- 7) The foam cushion backing of claim 5, wherein the functionalized polymer or copolymer material comprises maleic anhydride grafted to an ethylene polymer.
- 8) The foam cushion backing of claim 1, wherein the foamable polymer composition further comprises a filler.
- 9) A carpet or carpet tile comprising a precoated greige good having a face side and a back side, wherein the precoated greige good has the foam cushion backing of claim 1 affixed to the back side thereof with an adhesive material.
- 10) The carpet or carpet tile of claim 9, wherein the foam cushion backing is affixed to the back side of the precoated greige good with an adhesive material that is separately applied to either or both of the back side of the precoated greige good and foam cushion backing.

- 11) The carpet or carpet tile of claim 9, wherein the foam cushion backing is affixed to the back side of the precoated greige good with an adhesive material that is incorporated in the polymer composition.
- 12) The carpet or carpet tile of claim 9 having a compression set of from about 1 to about 20%, where the % refers to the % recovery of the backing after a 3" x 3" sample is compressed at 25% for 22 hours at ambient temperature.
- 13) The carpet or carpet tile of claim 9 having a compression set of from about 8 to about 20%, as measured by ASTM 3575 Suffix B.
- 14) The carpet or carpet tile of claim 9 having a compression resistance of from about 5 to about 25 psi, where the psi is measured by compressing a 3" x 3" sample of backing is compressed across the thickness for 1 minute and the force to recover the thickness is measured, and where the temperature is at ambient.
- 15) The carpet or carpet tile of claim 9 having a compression resistance of from about 18 to about 32 psi, as measured by ASTM 3575 Suffix D.
- 16) The carpet or carpet tile of claim 9, wherein the foam cushion backing has an outer surface and wherein the outer surface has a woven or non-woven textile material affixed thereto.
- 17) The carpet or carpet tile of claim 9, wherein the foam cushion backing has an outer surface and wherein the outer surface has an ethylene polymer cap coat affixed thereto.
- 18) The carpet or carpet tile of claim 17, wherein the capcoat is present at from about 5 to about 25 oz/yd².
- 19) The carpet or carpet tile of claim 9 having a delamination strength of greater than about 2.5 lbs/in as measured by ASTM D3936.
- 20) The carpet or carpet tile of claim 9 having a scrim incorporated on a surface of the foam cushion backing adjacent to the adhesive material.
- 21) A foam cushion backing comprising:
 - a) a foamable polymer composition comprising:
 - i) one or more of a homogenously branched ethylene polymer (HBEP) or a substantially linear ethylene polymer (SLEP); and
 - ii) one or more resilient materials,

wherein the foam cushion backing has a thickness of greater than 0.075 inches, and wherein the foam cushion backing is suitable for use in carpet or carpet tiles.

- 22) The foam cushion backing of claim 21, wherein the resilient material comprises one or more of: ethylene-propylene-diene monomer rubber (EPDM), ethylene-propylene monomer rubber (EPM), acrylonitrile-butadiene (NBR), styrene-butadiene (SBR), carboxylated NBR, carboxylated SBR, styrene block copolymer, thermoplastic elastomer and flexible very low density polyethylene resins.
- 23) The foam cushion backing of claim 22, wherein the resilient material is present in the polymer composition at from about 5 to about 40 % by weight of the foamable polymer composition.
- 24) The foam cushion backing of claim 21, wherein the foam cushion backing is substantially uncrosslinked.
- 25) The foam cushion backing of claim 21, comprising the SLEP.
- 26) The foam cushion backing of claim 21 having a thickness of from about 0.100 to about 0.225 inches.
- 27) The foam cushion backing of claim 21, wherein the foamable polymer composition further comprises an adhesive material, and wherein the adhesive material comprises a functionalized polymer or copolymer.
- 28) The foam cushion backing of claim 27, wherein the foamable polymer composition comprises from about greater than 0 to about 10 % of the functionalized polymer or copolymer, as measured by total weight of the foamable polymer composition.
- 29) The foam cushion backing of claim 27, wherein the functionalized polymer or copolymer material comprises maleic anhydride grafted to an ethylene polymer.
- 30) The foam cushion backing of claim 21, wherein the foamable polymer composition further comprises a filler.
- 31) A carpet or carpet tile comprising a precoated greige good having a face side and a back side, wherein the precoated greige good has the foam cushion backing of claim 21 affixed to the back side thereof with an adhesive material.
- 32) The carpet or carpet tile of claim 31, wherein the foam cushion backing is affixed to the back side of the carpet or carpet tile product with an adhesive material that is

separately applied to either or both of the back side of the carpet or carpet tile structure and the foam cushion backing.

- 33) The carpet or carpet tile of claim 31, wherein the foam cushion backing is affixed to the back side of the precoated greige good with an adhesive material that is incorporated in the polymer composition.
- 34) The carpet or carpet tile of claim 31 having a compression set of from about 1 to about 20%, where the % refers to the % recovery of the backing after a 3" x 3" sample is compressed at 25% for 22 hours at ambient temperature.
- 35) The carpet or carpet tile of claim 31 having a compression set of from about 8 to about 20%, as measured by ASTM 3575 Suffix B.
- 36) The carpet or carpet tile of claim 31 having a compression resistance of from about 5 to about 25 psi, where the psi is measured by compressing a 3" x 3" sample of backing is compressed across the thickness for 1 minute and the force to recover the thickness is measured, and where the temperature is at ambient.
- 37) The carpet or carpet tile of claim 31 having a compression resistance of from about 18 to about 32 psi, as measured by ASTM 3575 Suffix D.
- 38) The carpet or carpet tile of claim 31, wherein the foam cushion backing has an outer surface, and wherein the outer surface has an ethylene polymer capcoat affixed thereto.
- 39) The carpet or carpet tile of claim 38, wherein the capcoat is present at from 5 to about 25 oz/yd².
- 40) The carpet or carpet tile of claim 31 wherein the foam cushion backing has an outer surface, and wherein the outer surface has a woven or non-woven textile backing affixed thereto.
- 41) The carpet or carpet tile of claim 31 having delamination strength of greater than 2.5 lbs/in as measured by ASTM D3936.
- 42) The carpet or carpet tile of claim 31 having a scrim incorporated on a surface of the foam cushion backing adjacent to the adhesive material.
- 43) A method for making a foam cushion backing suitable for use in a carpet or carpet tile, wherein the method comprises:
 - a) providing a polymer composition comprising:

- i) one or more of a homogenously branched ethylene polymer ("HBEP") or a substantially linear ethylene polymer ("SLEP"); and
 - ii) a blowing agent;
- b) applying the polymer composition to a surface suitable to provide a foam cushion backing after activation of the blowing agent; and
- c) activating the blowing agent,
- thereby providing a foam cushion backing suitable for use in a carpet or carpet tile, wherein the foam cushion backing has a thickness of greater than about 0.075 inches.
- 44) The method of claim 43, further comprising providing a precoated greige good, wherein the surface is the precoated greige good, and wherein the blowing agent is activated after application of the polymer composition to the greige good, thereby providing a carpet structure having a foam cushion backing adhered thereto.
- 45) The method of claim 44, wherein the carpet structure having the foam cushion backing adhered thereto has a delamination strength of greater than about 2.5 lbs/in as measured by ASTM D3936.
- 46) The method of claim 43, further comprising providing a precoated greige good, wherein the foam cushion backing is laminated to the precoated greige good with an adhesive material after activation of the blowing agent.
- 47) The method of claim 43, wherein the polymer composition comprises a filler.
- 48) The method of claim 43, wherein the polymer composition comprises a resilient material.
- 49) The method of claim 48, wherein the resilient material comprises one or more of: ethylene-propylene-diene monomer rubber (EPDM), ethylene-propylene monomer rubber (EPM), acrylonitrile-butadiene (NBR), styrene-butadiene (SBR), carboxylated NBR, carboxylated SBR, styrene block copolymer, thermoplastic elastomer and flexible very low density polyethylene resins.
- 50) The foam cushion backing of claim 49, wherein the resilient material is present in the polymer composition at from about 5 to about 40 % by weight of the foamable polymer composition.
- 51) The method of claim 46, wherein the foam cushion backed carpet structure has a delamination strength of greater than about 2.5 lbs/in as measured by ASTM D3936.

52) The method of claim 43, further comprising introducing a scrim onto the foamable polymer composition prior to activation of the blowing agent, thereby providing a foam cushion backing having a scrim attached to a side thereof.